NASA/DoD Aerospace Knowledge Diffusion Research Project

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An Initial Investigation into the Production and Use of Scientific and Technical Information (STI) at Five NASA Centers: Results of a Telephone Survey

Nanci A. Glassman
Continental Research
Norfolk, Virginia

Thomas E. Pinelli
NASA Langley Research Center
Hampton, Virginia

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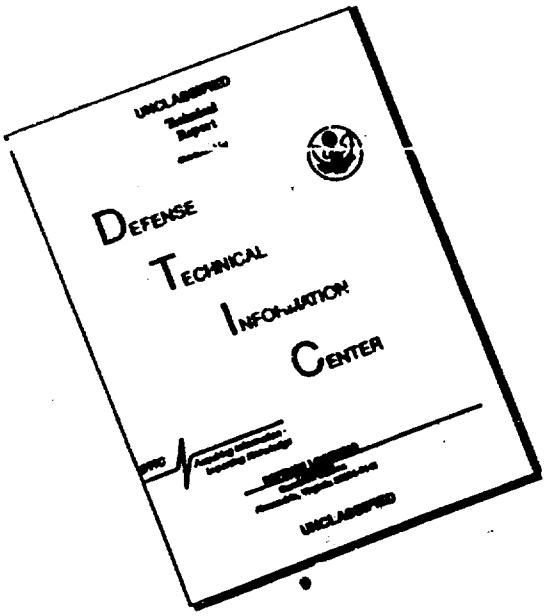

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PROCEDURAL INFORMATION

Background

The NASA Scientific and Technical Information (STI) System operates on the two-fold premise that (1) the ability of aerospace engineers and scientists to identify, acquire, utilize, and produce STI is of paramount importance to the efficiency of the research and development (R&D) process; and that (2) NASA has a congressional mandate to actively transfer the results of its research to the aerospace community and the American public at large. STI is monitored, collected, and compiled on a world-wide basis through the NASA Center for Aero Space Information (CASI) and the American Institute of Aeronautics and Astronautics (AIAA) Technical Information Service. NASA produced STI is collected and compiled through the STI activities at each NASA field installation. This collective effort forms the basis of the NASA STI database. The STI function at each field installation provides technical editing, manuscript preparation, graphics, technical photography, printing, and technical library services to support NASA research produce and publish the results of their work. NASA researchers gain access to the NASA STI database through a variety of information products and services including ARIN, IAA, RECON, STAR, and SCAN. The NASA STI program is managed through NASA Headquarters, Code JTT.

Executive Summary

The weighted sample which combined the data from the five Centers in their "correct" proportion is presented only as percentages. This is because weighted data are subject to rounding error and, therefore, typically don't "add up" to the total sample size.

The combined sample included 70 percent engineers, 23 percent scientists, 4 percent managers (who would not be categorized as scientists or engineers), and 3 percent technicians. Ninety-one percent of the respondents were males, and 55 percent held masters or doctorate degrees.

Overall, 26 percent of those interviewed work as individual researchers, 37 percent work on project teams, 20 percent are technical managers, and 17 percent are support staff. Fully 80 percent of the participants work in aeronautics, engineering, or space sciences. This might explain why only 2 percent of the people interviewed said that using STI was "not important" to their careers.

Nearly one-quarter of the personnel interviewed felt that publishing their work was "not important." A larger percentage (45 percent) felt that publishing through the NASA STI system was "not important" to their careers. Sixty-two percent of those interviewed, though, rated the NASA STI system that supports personnel in publishing their work as "excellent or good." In fact, less than 10 percent reported encountering any problems when using the NASA STI services to help publish their work.

In terms of using STI, 88 percent of the participants in the survey said that they would first look to resources <u>within</u> their Center when seeking scientific or technical information. Eighty-three percent said that the NASA STI system was "important" to them, and the same proportion rated the system as "excellent or good." In general, respondents view the NASA STI system favorably.

Methodology

This study used survey research methods to obtain feedback about the NASA STI system from personnel at each of five NASA Centers. A questionnaire was administered by telephone to 550 engineers, scientists, administrators, and support personnel who might, by virtue of their job descriptions, need to access scientific or technical information or use services in support of publishing efforts.

The study was conducted by Continental Research Associates, Inc., of Norfolk, Virginia. Professional research assistance was used to establish objectivity and confidentiality, to maintain the integrity of the study, and to obtain skills not otherwise readily available to the project. An additional factor involved the almost immediate deadline imposed on this research. The study objectives and design were approved on October 11, 1991, and the results were needed (in report form) four business days later.

After the study objectives were agreed upon, a draft questionnaire was submitted to Dr. Thomas Pinelli at NASA Langley Research Center in Hampton, Virginia. Dr. Pinelli coordinated the data collection phase of the project. After incorporating Dr. Pinelli's survey design suggestions, a pre-test of the survey instrument was conducted on October 11, 1991.

The pre-test is a technique used to clarify and revise a draft questionnaire. It helps to determine likely responses to open-ended questions and locate technical problems (e.g., sequencing, misunderstood terminology). This pre-test consisted of 38 surveys with personnel at 3 of the 5 Centers. All five Centers could not be included in the pre-test because two of the sample frames had yet to be provided to Continental Research. In general, the survey was well-received by potential respondents. A number of wording and format changes were made as a result of these 38 interviews. Additionally, there were enough queries about the "authenticity" of the study that a list of contact personnel for each Center needed to be provided to the interviewing staff.

Methodology (continued)

Once the final revisions were made to the instrument, computer codes and keypunching instructions were added and the survey was printed. This final questionnaire draft included 23 interrogatives. There were 3 open-ended items and 20 closed-ended questions. The average administration time for the survey was 6 minutes.

The sample frame for the interviewing phase of this study was provided to Continental Research by Dr. Pinelli. Each Center had submitted a list (based on specified characteristics) to Dr. Pinelli. Some Centers were able to provide a listing of aerospace technologists (AST personnel) who are not contractors, while other Centers could provide only their Center phone directories. Some lists required cross-referencing each name with the Center phone directory in order to obtain the office phone number for the potential respondents. While much screening was often necessary to secure interviews with the appropriate personnel, the lists were generally current and accurate.

Because surveys seek to predict the opinions of a population by sampling only a subset of the population, a sample was drawn from the lists provided by each Center. The sample selection procedure varied by Center. For those Centers where the sample frame list included only civil service aerospace technologists, a skip interval sampling design procedure was employed. Skip interval sampling approximates true random sampling. The process involved dividing the number of names on the list by 200 and then selecting every "nth" name from the list. The selected names were then called, and any name eliminated from the sample in the screening process (e.g., secretarial staff or contract personnel) was replaced by a name from that same page.

For those Centers where a special list could not be provided, the number of names on the list was divided by 300 and a skip interval selection procedure employed. A larger number of names was required in this instance because of the large number of personnel who would later be screened out of the sample.

Methodology (continued)

The sample frames provided by the Centers totaled 9,792 names. It was decided that the target number of interviews from each Center should be 100. Because the Center staff sizes were not equal, though, these five samples would be combined into a weighted sample for reporting the results. The distribution of the sample listings was as follows:

1,941 Langley Research Center
1,179 Ames Research Center
3,098 Goddard Space Flight Center
2,205 Marshall Space Flight Center
1,369 Lewis Research Center

The approximate number of AST personnel at each Center was provided by Dr. Pinelli for use in the weighting of the overall (five Center) combined sample. The AST totals are as follows:

1,414 Langley Research Center
1,186 Ames Research Center
2,181 Goddard Space Flight Center
2,504 Marshall Space Flight Center
1,583 Lewis Research Center.

Based on these proportions, the overall weighted sample will be comprised of approximately 15.9 percent from Langley, 13.4 percent from Ames, 24.6 percent from Goddard, 28.2 percent from Marshall, and 17.8 percent from Lewis Research Center.

The 550 interviews with Center personnel were conducted by telephone from the Continental Research offices in Virginia. Because the data collection phase is critical to the success of the study, a central interviewing facility with on-site monitoring capabilities was used. Each professional interviewer worked from a private, well-equipped office with hands-free electronic telephone equipment. A briefing session with the Project Director preceded

all interviewing and included information about the NASA STI system, how the survey was to be conducted, and how the quotas (by Center) were to be maintained. Each interviewer participated in several role-playing exercises to become completely familiar with the survey instrument before calling NASA personnel. It was agreed that open-ended responses were to be recorded verbatim. Anticipated open-ended responses were discussed as well as how to use the precoded response items. Techniques for handling respondent questions and probing vague answers were also covered in the briefing.

Phone calls were made between 8:30 a.m. and 5:30 p.m. (local times). Each person selected for inclusion in the sample was called at least once on Tuesday, October 15th. On the following two days, attempts were made to contact those who were unavailable on the 15th. People who were clearly not going to be available during the interviewing process were removed from the sample and substitute names were selected. A record of each attempt was maintained by the interviewer.

A total of 550 interviews were completed during the data collection phase. This is 10 more (per Center) than was agreed upon in the contract but is the traditional "cushion" used during projects with short deadlines. The surveys were numerically coded for entry into the computer and responses to the open-ended questions were grouped into common codes. Dr. Pinelli aided the project team by providing STAR classifications for those respondents who did not fit into the standard survey categories. The computer-ready surveys were then keyed separately by two data entry operators (for 100 percent accuracy). Computer programs were written to tabulate the responses to each question and complete special analyses.

Methodology (continued)

The results of this study are provided on the following pages. This report is divided into three sections:

SECTION 1: The overall weighted sample results for all five Centers combined.

SECTION 2: The individual Center responses to the survey.

SECTION 3: Selected crosstabulations.

Sampling Variability Estimates

The term "sampling variability" is used when referring to the difference between what survey results report and what one would get if a complete census was conducted. It is expressed as the maximum percentage that a figure in our report could vary from what a full census would produce (because of the sampling process). At a total sample size of 550, we are 95 percent certain that any percentages in the report would be within ±4.05 percentage points (assuming a dichotomous question). Sampling error estimates for the five individual Centers are as follows:

	AST Population	Sampling Error
Ames Research Center	1186	±3.9%
Goddard Space Flight Center	2181	±9.1%
Langley Research Center	1414	±8.97%
Lewis Research Center	1583	±9.0%
Marshall Space Flight Center	2504	±9.15%

Results of Phone Calls:

1865 phone numbers were used in the process of obtaining 550 intvs.
Most numbers were contacted 2 to 4 times.

CONTACTED/UNUSABLE NUMBERS:

7	were disconnected phone lines
39	were wrong numbers
1	involved a language barrier
5	were no longer employed at that facility
36	were on vacation/travel
20	refused to participate
125	were contractors or clerical employees
550	completed interviews
783	contacted

NEVER CONTACTED:

217	were unanswered phones each time we called
51	had busy signals each time we called
658	had voice mail/answering machines
156	could have been called at a later date/in meetings
1082	not contacted

Space Center/Research Center

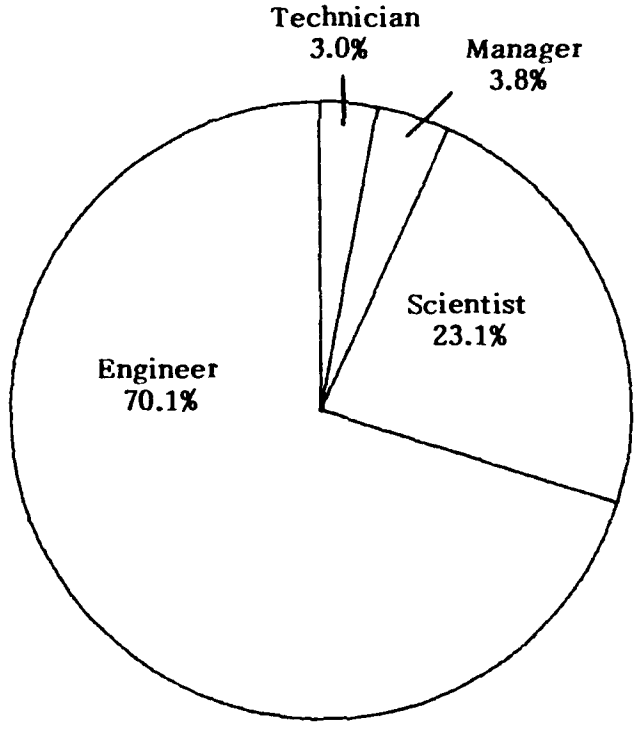
	Weighted Total
Ames Research Center (California)	13.4%
Goddard Space Flight Center (Maryland)	24.6%
Marshall Space Flight Center (Alabama)	16.0%
Lewis Research Center (Ohio)	17.8%
Langley Research Center (Virginia)	28.2%
	100.0%
	(n=550)

NOTE: Originally, 110 people from each center were interviewed. As detailed in the methodology, this sample was balanced to raise each center's AST population to its correct proportion.

If you were to define what you do at work, would you say you are an engineer, a scientist, or something else?

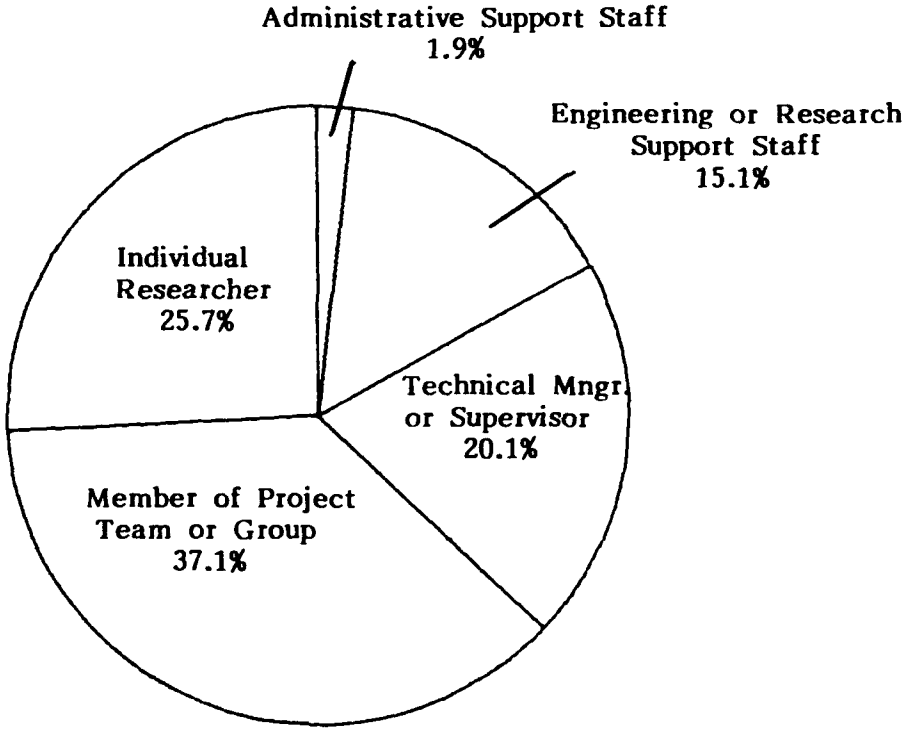
	Weighted Total
Engineer	70.1%
Scientist	23.1%
Manager	3.8%
Technician	3.0%
	100.0%
	(n=550)

NOTE: If the respondent was not an engineer or a scientist, other questions were asked to screen out clerical and support staff from this particular survey.



Which of these categories best describes what you do at work? Are you primarily (READ CHOICES LISTED) :

	Weighted Total
An individual researcher	25.7%
A member of a project team or group	37.1%
A technical manager or supervisor	20.1%
Engineering or research support staff	15.1%
Administrative support staff	1.9%
	100.0%
	(n=550)



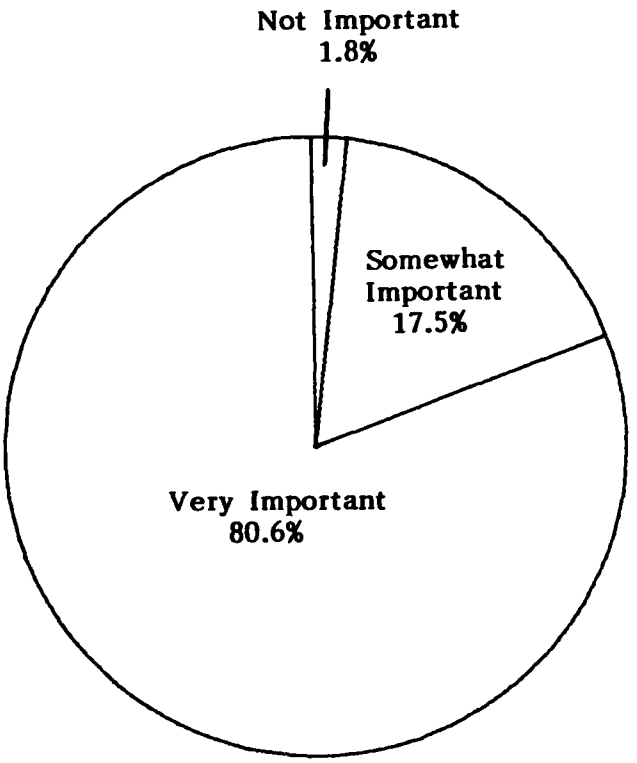
If you could use only one term to characterize your area of work or the application of your work, would it be (READ ALL CHOICES LISTED) :

	Weighted Total
Aeronautics	29.0%
Astronautics	8.0%
Engineering	30.8%
Space Sciences	20.8%
Chemistry and Materials	0.5%
Geosciences	3.1%
Mathematical and Computer Sciences	4.2%
Physics	1.7%
Social Sciences	1.7%
Life Sciences	0.4%
	100.0%
	(n=550)

NOTE: Only the first four choices were read to the respondent.

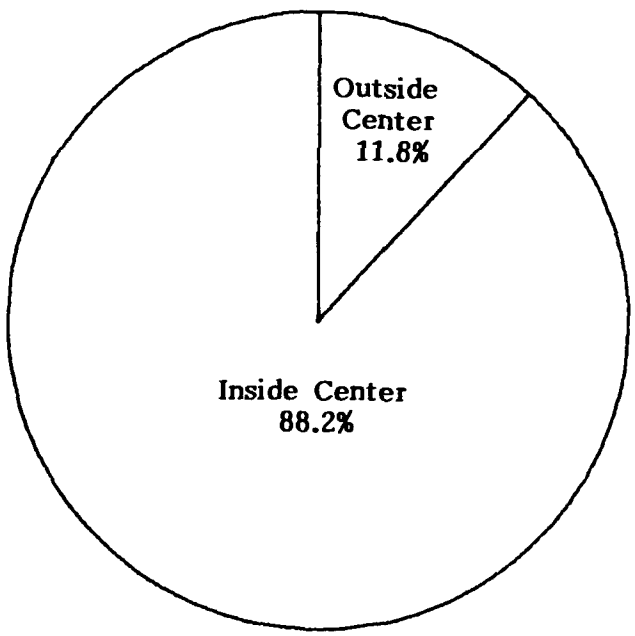
In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Weighted Total
Very important	80.6%
Somewhat important	17.5%
Not important	1.8%
	100.0%
	(n=550)



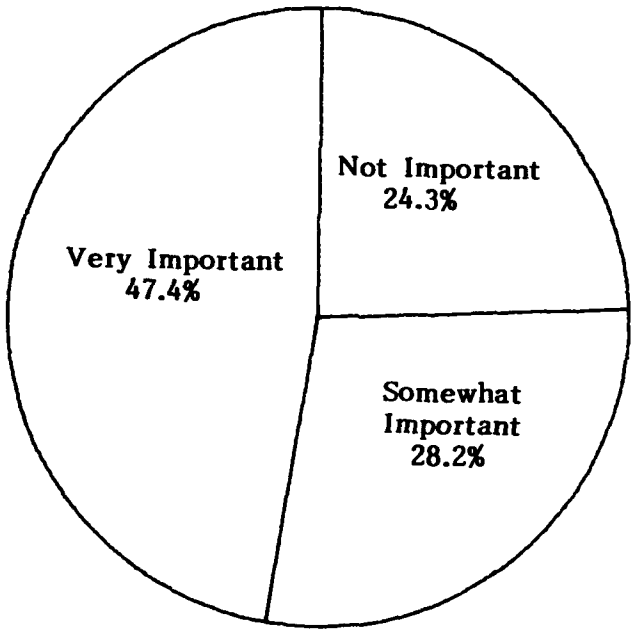
When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Weighted Total
Within center	88.2%
Outside center	11.8%
	100.0%
	(n=550)



In your job, how important is it for you to publish scientific and technical information? Is it very important, somewhat important, or not important?

	Weighted Total
Very important	47.4%
Somewhat important	28.2%
Not important	24.3%
	100.0%
	(n=550)

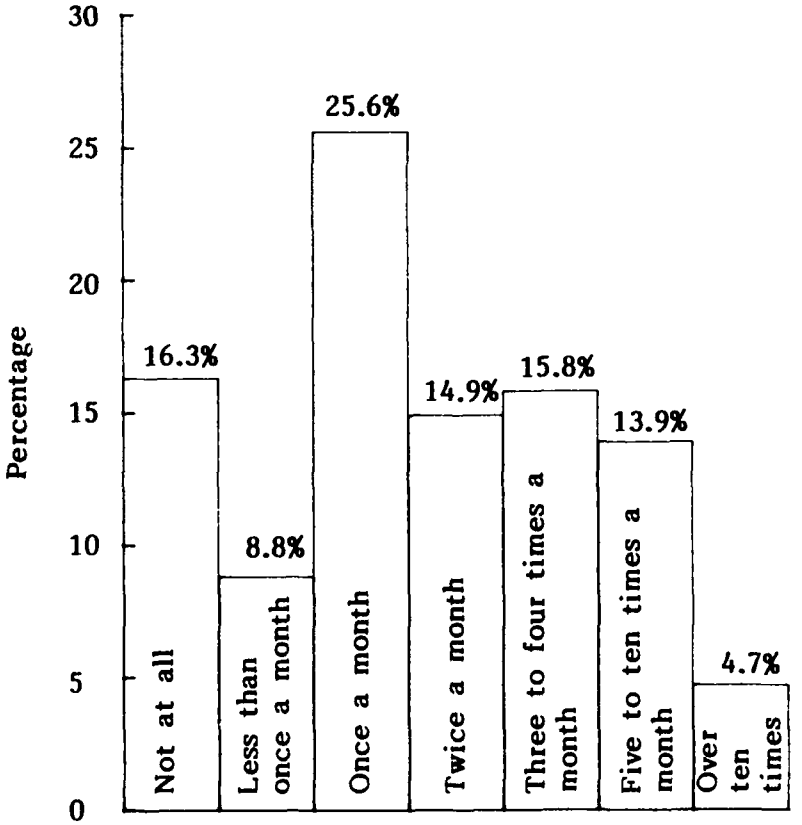


The NASA scientific and technical information system provides services such as editing, graphics, photography, printing and library services at each NASA center. This system produces a variety of products including NASA technical reports. STAR, SCAN, RECON, and ARIN are also part of the STI system. How many total times per month do you use any product or service included in the NASA scientific and technical information system?

	Weighted Total
Not at all*	16.3%
Less than once a month*	8.8%
Once a month*	25.6%
Twice a month	14.9%
Three to four times a month	15.8%
Five to ten times a month	13.9%
Over ten times a month	4.7%
	100.0%
	(n=550)

Mean = 3.1 times/month
Median = 1.0 time/month

*NOTE: The people who used the system less than twice a month were asked their reasons for the infrequent use (see next page).



(Asked only of those people who used the NASA STI system once a month or less...)

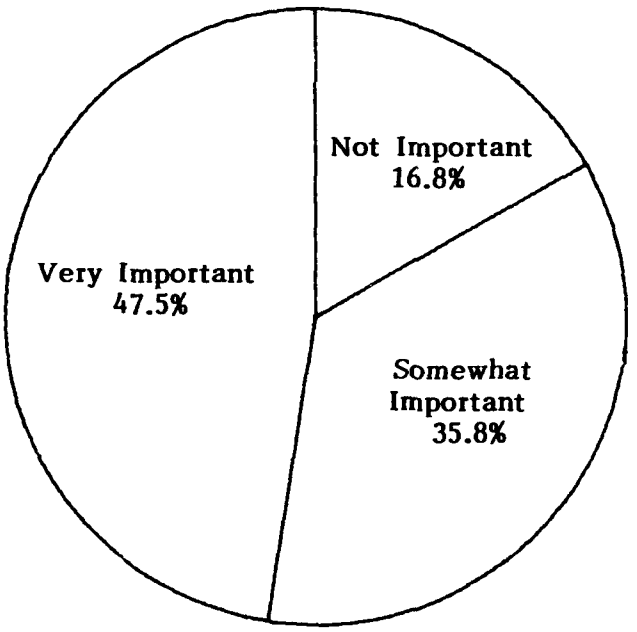
I noticed that you're not a frequent user of the NASA STI system products and services. Why is that?

	Weighted Total
It's not part of my job responsibilities	33.4%
I've had no need to use the NASA STI system recently	23.9%
I have the information I need in my office	9.1%
I'm not familiar with the system	6.3%
I do my own typing, graphics, etc.	5.0%
I use my own computer for searches	4.4%
I prefer to use my journals	4.1%
I prefer outside sources	3.2%
I use production services occasionally	2.9%
NASA information is "old"/I need more current information	2.6%
Contractors do the research for me	1.7%
The NASA system doesn't have what I want	1.3%
The NASA system is too slow	0.7%
The NASA system is hard to use	0.6%
Databases are not part of the NASA system	0.3%
The information is not reliable	0.3%
I prefer Telecon	0.2%
	100.0%

(n=279, rather than 550)

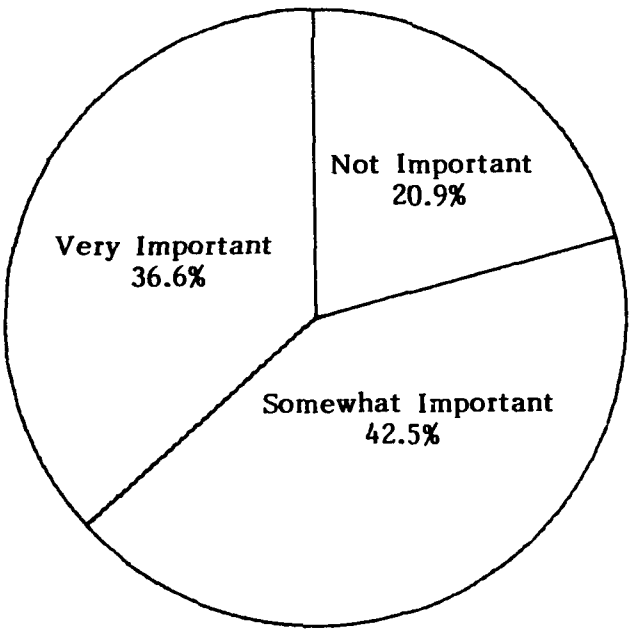
Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Weighted Total
Very important	47.5%
Somewhat important	35.8%
Not important	16.8%
	100.0%
	(n=550)



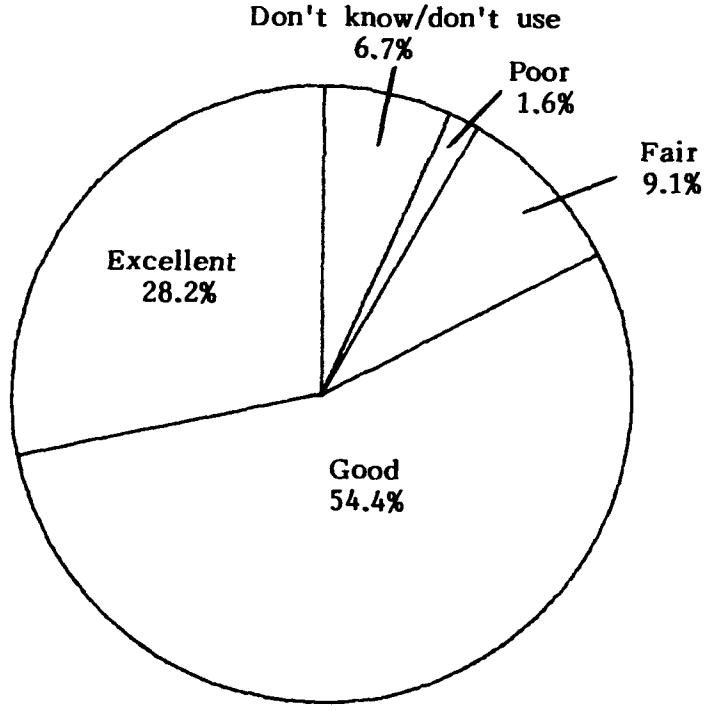
To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Weighted Total
Very important	36.6%
Somewhat important	42.5%
Not important	20.9%
	100.0%
	(n=550)



How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

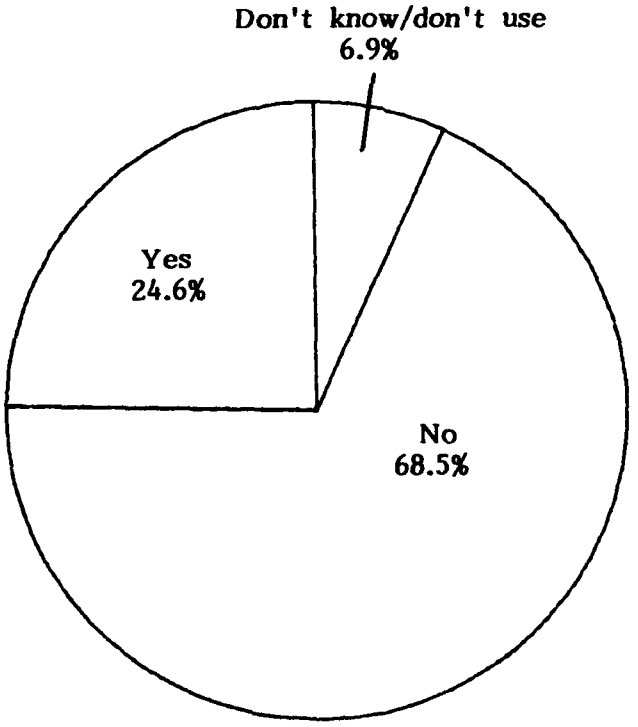
	Weighted Total
Excellent	28.2%
Good	54.4%
Fair	9.1%
Poor	1.6%
I don't know/don't use	6.7%
	100.0%
	(n=550)



Have you encountered problems using the NASA STI system when you need to access information?

	Weighted Total
Yes	24.6%
No	68.5%
I don't know/don't use	6.9%
	100.0%
	(n=550)

NOTE: The people who had experienced problems when accessing information were asked to describe their difficulties. Many of these people discussed multiple problem areas, so the next table reflects the number of times each "problem" was mentioned in conversation.



What problems have you experienced when using the NASA STI system to access information? (DO NOT READ CHOICES)

(75.0%) had not encountered any problems using the NASA STI system to access information

(8.0%) of the respondents mentioned that it takes too much time/effort to locate information

(6.4%) mentioned that it takes too much time/effort to obtain information

(4.1%) mentioned that the NASA STI system is not accurate/precise enough/ reliable

(2.4%) mentioned that the information they need is not available through NASA

(2.1%) mentioned that the database is not extensive enough

(2.0%) mentioned that the reports are too hard to read/use

(1.7%) mentioned that abstract key words are bad

(1.2%) mentioned that they prefer hard copy, not electronic information

(1.2%) mentioned that they don't like the organization of the reports

(0.9%) mentioned that they library personnel are not good

(0.9%) mentioned that they hate microfilm/fiche

(0.8%) mentioned that the NASA library is too small

(0.8%) mentioned that RECON is hard to use

(0.7%) mentioned that they want to access it from their own computer

(0.5%) mentioned that RECON is out of date

(0.5%) mentioned that the NASA information is old

(0.4%) mentioned that they can't find and obtain foreign reports

(0.3%) mentioned that they want what is already checked out

(0.3%) mentioned that report titles are not always on the microfilm

(0.3%) mentioned that the librarians are too busy with contractors

(0.2%) mentioned that they can't use RECON from their office

(0.2%) mentioned that the tutorials are very slow

(0.2%) mentioned that the books are not on-site

(0.2%) mentioned that the system is shut down and they can't use it

(0.2%) mentioned that they don't like the pilot study with ARIN

(0.2%) mentioned that the classified information takes too long to de-classify

(0.2%) mentioned that the paperwork is excessive

(continued)

What problems have you experienced when using the NASA STI system to access information? (DO NOT READ CHOICES) (continued)

(0.1%) mentioned that Army reports are not in the system

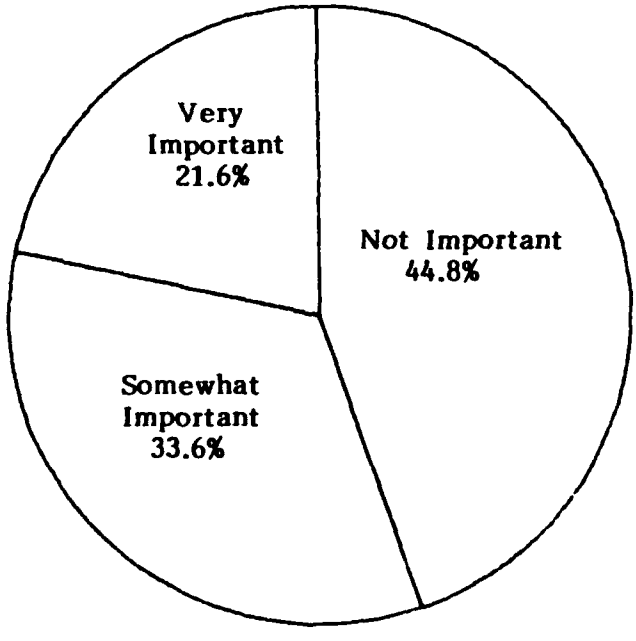
(0.1%) mentioned that it needs linkage with other NASA sites

(n=550)

NOTE: Percentage totals will exceed 100 because some people gave more than one response to this question.

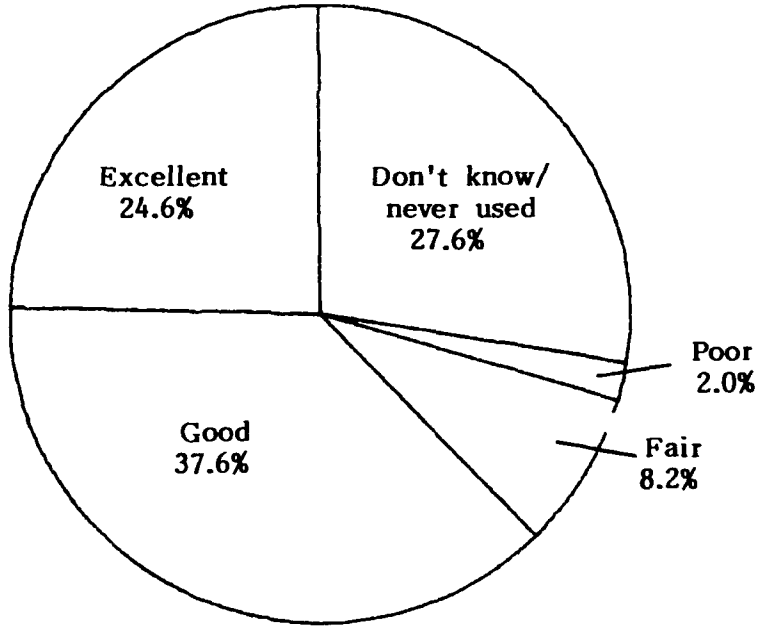
In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Weighted Total
Very important	21.6%
Somewhat important	33.6%
Not important	44.8%
	100.0%
	(n=550)



How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Weighted Total
Excellent	24.6%
Good	37.6%
Fair	8.2%
Poor	2.0%
I don't know/never used	27.6%
	100.0%
	(n=550)



Have you encountered any problems using the NASA STI system services when you publish?

	Weighted Total
Yes	9.9%
No	61.9%
I don't know/never used	28.1%
	100.0%
	(n=550)

NOTE: The 54 people who had experienced problems were asked to describe their difficulties. Some people mentioned multiple problem areas, so the next table reflects the number of times a "problem" was mentioned in conversation.

What problems have you experienced when using the NASA STI system services when you publish?

(90.0%) had not encountered any problems using the NASA STI system services when they publish

(8.6%) of the respondents mentioned that the process is too time-consuming

(0.6%) mentioned that the graphics aren't accurate

(0.4%) mentioned that the staff didn't follow their instructions

(0.3%) mentioned that printing and binding is not good

(0.3%) mentioned that NASA reports are not well accepted by the scientific community

(0.2%) mentioned that the system is rigid/too hard to work in

(0.2%) mentioned that the rules for TM's make for a bad project

(0.2%) mentioned that the distribution limit rules are bad

(0.2%) mentioned that they don't understand the "rules" they have

(0.2%) mentioned that the editing quality isn't good

(0.2%) mentioned that the photo lab has a backlog

(0.2%) mentioned that they couldn't do 35mm slides

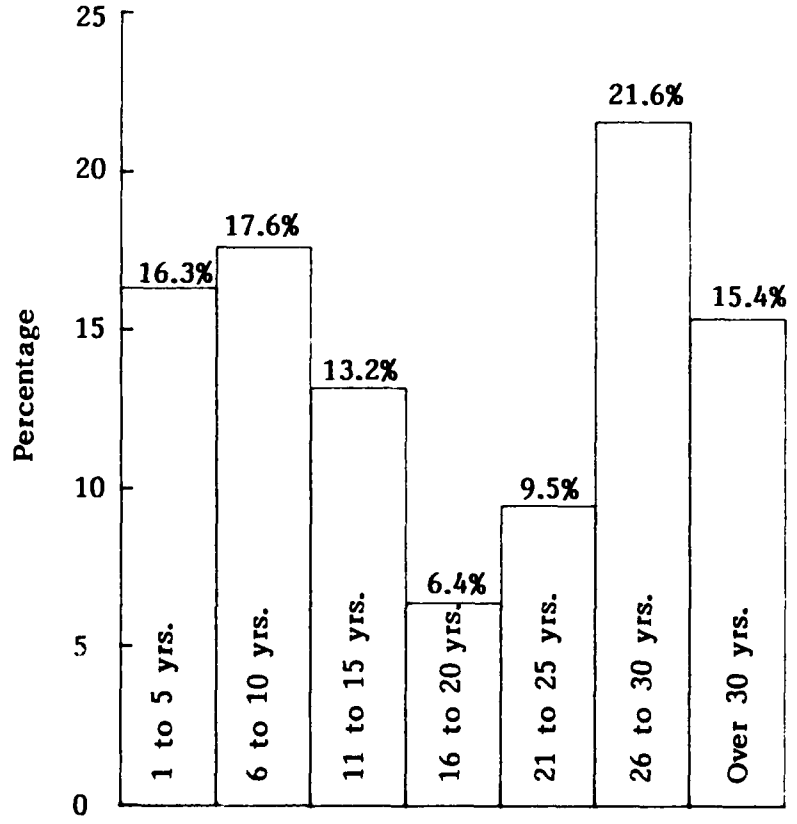
(n=550)

NOTE: Percentage totals will exceed 100 because some people gave more than one response to this question.

How many total years of professional work experience have you had?

	Weighted Total
1 to 5 years	16.3%
6 to 10 years	17.6%
11 to 15 years	13.2%
16 to 20 years	6.4%
21 to 25 years	9.5%
26 to 30 years	21.6%
Over 30 years	15.4%
	100.0%
	(n=550)

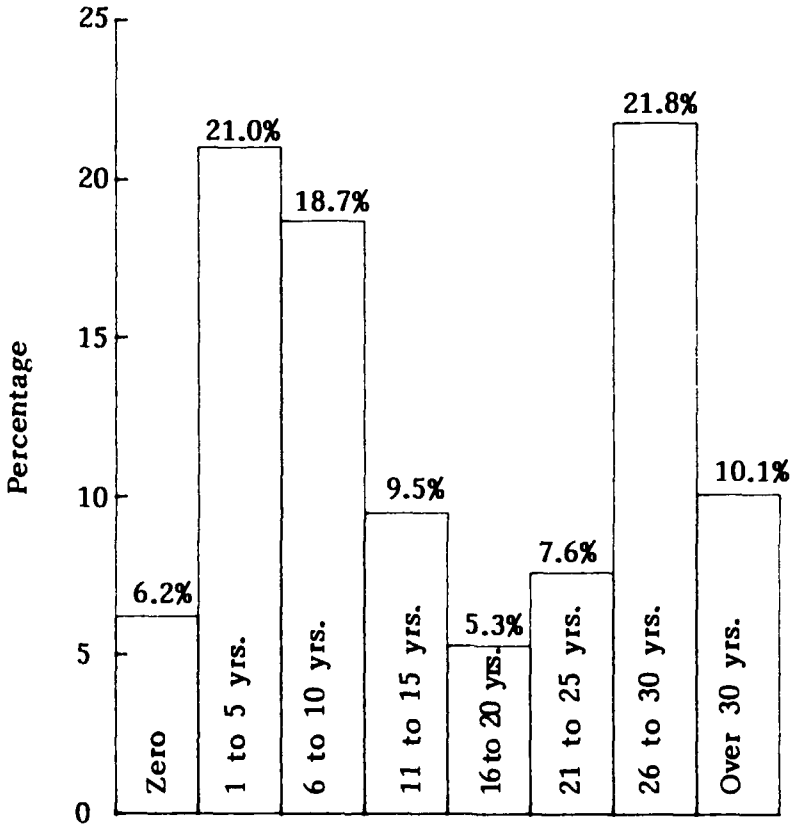
Mean = 18.8 years
Median = 18 years



How many years, if any, of professional work experience in aerospace have you had?

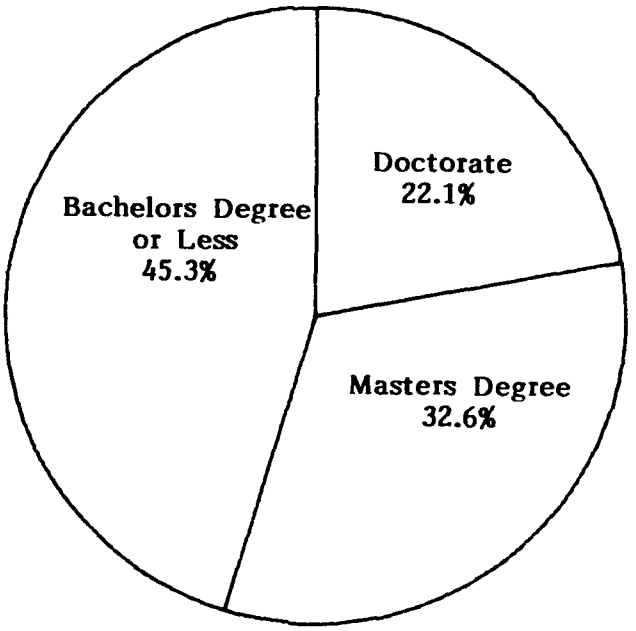
	Weighted Total
Zero	6.2%
1 to 5 years	21.0%
6 to 10 years	18.7%
11 to 15 years	9.5%
16 to 20 years	5.3%
21 to 25 years	7.6%
26 to 30 years	21.8%
Over 30 years	10.1%
	100.0%
	(n=550)

Mean = 16.1 years
Median = 13 years



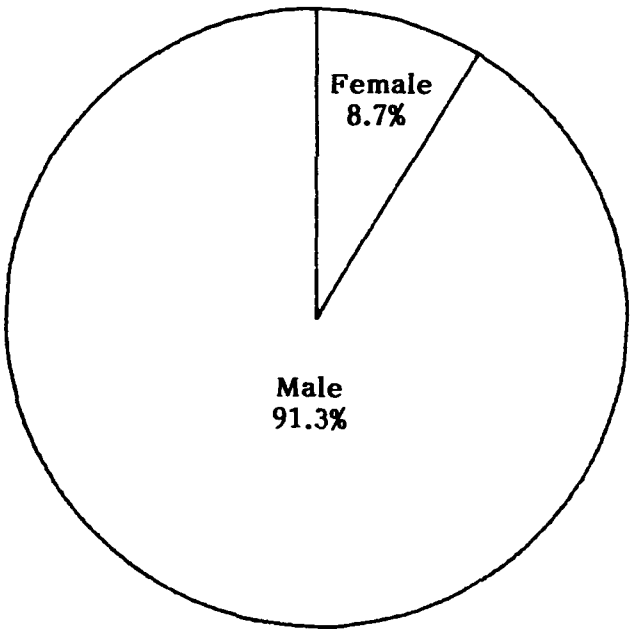
What is the highest level of education you have completed?

	Weighted Total
Bachelors degree (or less)	45.3%
Masters degree	32.6%
Doctorate	22.1%
	100.0%
	(n=550)



Gender of Respondent

	Weighted Total
Male	91.3%
Female	8.7%
	100.0%
	(n=550)



Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services

THEY ARE:	Mean	Median
Engineers	3.04	1.00
Scientists	3.58	2.00
Managers	1.26	1.00
Technicians	3.17	1.00
THEY ARE:		
Individual Researchers	3.86	3.00
Member of Project Team or Group	2.56	1.00
Technical Managers or Supervisors	3.73	1.00
Engineering or Research Support Staff	2.31	1.00
Administrative Support Staff	2.86	1.00
WORKS IN:		
Aeronautics	4.21	2.00
Astronautics	2.06	1.00
Engineering	2.34	1.00
Space Sciences	3.20	2.00
Chemistry and Materials	3.80	6.00
Geosciences	3.12	2.00
Mathematical or Computer Science	1.72	1.00
Physics	1.76	1.00
Social Sciences	6.21	0.00
Life Sciences	2.67	1.00

(continued)

NOTE: Many of these sub-group sample sizes are very small.

Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services (continued)

IN YOUR JOB, STI IS:	Mean	Median
Very important	3.47	2.00
Somewhat important	1.65	1.00
Not important	0.72	0.50
OVERALL, NASA STI SYSTEM IS:		
Very important	4.92	3.00
Somewhat important	1.86	1.00
Not important	0.60	0.50
IN YOUR JOB, NASA STI SYSTEM IS:		
Very important	5.28	3.00
Somewhat important	2.43	1.00
Not important	0.65	0.50
RATING IMPORTANCE OF PUBLISHING THRU NASA STI SYSTEM:		
Very important	4.94	3.00
Somewhat important	3.54	2.00
Not important	1.88	1.00
EDUCATION:		
Bachelors degree or less	2.99	1.00
Masters degree	2.81	2.00
Doctorate	3.73	2.00

NOTE: Many of these sub-group sample sizes are very small.

Tabulations for Each Center

The sample quotas were identical for each of the five Centers. This allowed the findings to be presented separately for each Center as well as in a combined (weighted) form.

Ames Research Center and Goddard Space Flight Center had the highest proportion of "scientists" (31 percent and 29 percent respectively) participating in this study, while Marshall had only 9 percent. Langley Research Center had the highest proportion of personnel working as "individual researchers." In fact, only 8 percent of the Langley participants work in support staff roles.

Langley Research Center participants were most likely to report that they work in aeronautics (48 percent), while half of the Marshall respondents were engineers. Clearly, the personnel at the five Centers differ in many ways.

It is expected that participants from each Center would have different scientific and technical information (STI) needs. Differences in their job descriptions would indicate differences in their reliance on STI. When asked if scientific and technical information was an important part of their job, most respondents thought that it was. Marshall Space Flight Center personnel were least likely to rely on STI, but this Center also had the highest representation of support staff in the sample.

In general, respondents who need scientific and technical information look first to resources within their Center. Nearly all of the people interviewed use STI in their jobs, yet some do not use the NASA-sponsored STI system. An informal network of journal "exchanges" and technology documentation serves some staff well.

When asked if publishing was an important part of their jobs, nearly all of the Langley respondents said that it was. Staff at Marshall Space Flight Center were least likely to publish their work. In fact, 41 percent of the Marshall employees said that publishing was unimportant in their careers.

The NASA STI system was considered to be "very important" to 63 percent of the Langley employees interviewed. This contrasts with the Marshall staff in that only 36 percent of them felt that the NASA STI system was very important to them. The Langley personnel clearly rated the NASA STI system highly. On a scale of "excellent, good, fair, or poor," 42 percent of the Langley employees rated it as "excellent." This is a significantly higher score than was bestowed by the personnel at any other center. Additionally, Langley personnel were most likely to publish their work through the NASA STI system and least likely (of those who use the system) to encounter any problems.

If you were to define what you do at work, would you say you are an engineer, a scientist, or something else?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Engineer	71	66	92	79	80
	64.5%	60.0%	83.6%	71.8%	72.7%
Scientist	34	32	10	24	25
	30.9%	29.1%	9.1%	21.8%	22.7%
Manager	5	4	4	6	3
	4.5%	3.6%	3.6%	5.5%	2.7%
Technician	0	8	4	1	2
	0.0%	7.3%	3.6%	0.9%	1.8%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

NOTE: If the respondent was not an engineer or a scientist, other questions were asked to screen out clerical and support staff from this particular survey.

Which of these categories best describes what you do at work? Are you primarily (READ CHOICES LISTED) :

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
An individual researcher	27 24.5%	21 19.1%	10 9.1%	31 28.2%	44 40.0%
A member of a project team or group	47 42.7%	46 41.8%	44 40.0%	37 33.6%	34 30.9%
A technical manager or supervisor	22 20.0%	25 22.7%	11 10.0%	27 24.5%	23 20.9%
Engineering or research support staff	13 11.8%	16 14.5%	37 33.6%	14 12.7%	9 8.2%
Administrative support staff	1 0.9%	2 1.8%	8 7.3%	1 0.9%	0 0.0%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%

If you could use only one term to characterize your area of work or the application of your work, would it be (READ ALL CHOICES LISTED):

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Aeronautics	46 41.8%	4 3.6%	9 8.2%	47 42.7%	53 48.2%
Astronautics	10 9.1%	10 9.1%	14 12.7%	9 8.2%	4 3.6%
Engineering	21 19.1%	39 35.5%	55 50.0%	27 24.5%	28 25.5%
Space Sciences	20 18.2%	41 37.3%	17 15.5%	19 17.3%	14 12.7%
Chemistry and Materials	2 1.8%	0 0.0%	0 0.0%	0 0.0%	1 0.9%
Geosciences	1 0.9%	9 8.2%	0 0.0%	1 0.9%	3 2.7%
Mathematical and Computer Sciences	5 4.5%	5 4.5%	5 4.5%	3 2.7%	5 4.5%
Physics	1 0.9%	1 0.9%	1 0.9%	4 3.6%	2 1.8%
Social Sciences	1 0.9%	1 0.9%	9 8.2%	0 0.0%	0 0.0%
Life Sciences	3 2.7%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%

NOTE: Only the first four choices were read to the respondents.

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Very important	89 80.9%	92 83.6%	71 64.5%	85 77.3%	98 89.1%
Somewhat important	20 18.2%	18 16.4%	30 27.3%	24 21.8%	11 10.0%
Not important	1 0.9%	0 0.0%	9 8.2%	1 0.9%	1 0.9%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Within center	93 84.5%	99 90.0%	102 92.7%	96 87.3%	95 86.4%
Outside center	17 15.5%	11 10.0%	8 7.3%	14 12.7%	15 13.6%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%

In your job, how important is it for you to publish scientific and technical information? Is it very important, somewhat important, or not important?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Very important	54	44	19	59	73
	49.1%	40.0%	17.3%	53.6%	66.4%
Somewhat important	34	27	46	26	28
	30.9%	24.5%	41.8%	23.6%	25.5%
Not important	22	39	45	25	9
	20.0%	35.5%	40.9%	22.7%	8.2%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

The NASA scientific and technical information system provides services such as editing, graphics, photography, printing and library services at each NASA center. This system produces a variety of products including NASA technical reports. STAR, SCAN, RECON, and ARIN are also part of the STI system. How many total times per month do you use any product or service included in the NASA scientific and technical information system?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Not at all*	25	16	27	18	11
	22.7%	14.5%	24.5%	16.4%	10.0%
Less than once a month*	10	10	17	18	0
	9.1%	9.1%	15.5%	16.4%	0.0%
Once a month*	24	34	29	18	31
	21.8%	30.9%	26.4%	16.4%	28.2%
Twice a month	20	15	15	19	15
	18.2%	13.6%	13.6%	17.3%	13.6%
Three to four times a month	18	13	7	20	25
	16.4%	11.8%	6.4%	18.2%	22.7%
Five to ten times a month	11	17	8	12	22
	10.0%	15.5%	7.3%	10.9%	20.0%
Over ten times a month	2	5	7	5	6
	1.8%	4.5%	6.4%	4.5%	5.5%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%
Mean =	2.56	2.92	2.62	2.74	4.01
Median =	1.0	1.0	1.0	1.0	1.0

*NOTE: The 288 people who used the system less than twice a month were asked their reasons for the infrequent use (see next page).

(Asked only of those people who used the NASA STI system once a month or less...)

I noticed that you're not a frequent user of the NASA STI system products and services. Why is that?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
It's not part of my job responsibilities	19 32.2%	21 35.0%	25 34.2%	23 42.6%	10 23.8%
I've had no need to use the NASA STI system recently	7 11.9%	15 25.0%	15 20.5%	15 27.8%	13 31.0%
I have the information I need in my office	4 6.8%	6 10.0%	8 11.0%	2 3.7%	5 11.9%
I'm not familiar with the system	4 6.8%	3 5.0%	9 12.3%	3 5.6%	1 2.4%
I do my own typing, graphics, etc.	5 8.5%	1 1.7%	1 1.4%	0 0.0%	6 14.3%
I use my own computer for searches	5 8.5%	4 6.7%	2 2.7%	1 1.9%	1 2.4%
I prefer to use my own journals	2 3.4%	4 6.7%	3 4.1%	0 0.0%	2 4.8%
I use production services occasionally	2 3.4%	1 1.7%	4 5.5%	1 1.9%	1 2.4%
I prefer outside sources	2 3.4%	1 1.7%	1 1.4%	3 5.6%	2 4.8%
NASA information is "old"/I need more current information	4 6.8%	1 1.7%	2 2.7%	2 3.7%	0 0.0%
Contractors do the research for me	1 1.7%	2 3.3%	1 1.4%	1 1.9%	0 0.0%
The NASA system doesn't have what I want	1 1.7%	1 1.7%	2 2.7%	0 0.0%	0 0.0%
The NASA system is hard to use	1 1.7%	0 0.0%	0 0.0%	1 1.9%	0 0.0%
The NASA system is too slow	1 1.7%	0 0.0%	0 0.0%	0 0.0%	1 2.4%

(continued)

(Asked only of those people who used the NASA STI system once a month or less...)

I noticed that you're not a frequent user of the NASA STI system products and services. Why is that? (continued)

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
I prefer Telecon	1	0	0	0	0
	1.7%	0.0%	0.0%	0.0%	0.0%
Databases are not part of the NASA system	0	0	0	1	0
	0.0%	0.0%	0.0%	1.9%	0.0%
The information is not reliable	0	0	0	1	0
	0.0%	0.0%	0.0%	1.9%	0.0%
	59	60	73	54	42
	100.0%	100.0%	100.0%	100.0%	100.0%

NOTE: This table has smaller sample sizes because only a sub-set of respondents were asked this question.

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Very important	38	48	39	54	69
	34.5%	43.6%	35.5%	49.1%	62.7%
Somewhat important	46	42	40	40	33
	41.8%	38.2%	36.4%	36.4%	30.0%
Not important	26	20	31	16	8
	23.6%	18.2%	28.2%	14.5%	7.3%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Very important	34	33	29	40	56
	30.9%	30.0%	26.4%	36.4%	50.9%
Somewhat important	44	54	47	51	39
	40.0%	49.1%	42.7%	46.4%	35.5%
Not important	32	23	34	19	15
	29.1%	20.9%	30.9%	17.3%	13.6%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Excellent	20	23	31	27	46
	18.2%	20.9%	28.2%	24.5%	41.8%
Good	56	67	53	65	56
	50.9%	60.9%	48.2%	59.1%	50.9%
Fair	18	14	5	8	7
	16.4%	12.7%	4.5%	7.3%	6.4%
Poor	7	1	0	3	0
	6.4%	0.9%	0.0%	2.7%	0.0%
I don't know/don't use	9	5	21	7	1
	8.2%	4.5%	19.1%	6.4%	0.9%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Yes	35	28	22	31	23
	31.8%	25.5%	20.0%	28.2%	20.9%
No	63	77	67	73	86
	57.3%	70.0%	60.9%	66.4%	78.2%
I don't know/ don't use	12	5	21	6	1
	10.9%	4.5%	19.1%	5.5%	0.9%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Very important	26	11	8	28	40
	23.6%	10.0%	7.3%	25.5%	36.4%
Somewhat important	30	30	35	44	43
	27.3%	27.3%	31.8%	40.0%	39.1%
Not important	54	69	67	38	27
	49.1%	62.7%	60.9%	34.5%	24.5%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Excellent	17	21	16	29	42
	15.5%	19.1%	14.5%	26.4%	38.2%
Good	40	36	29	52	47
	36.4%	32.7%	26.4%	47.3%	42.7%
Fair	18	5	14	10	5
	16.4%	4.5%	12.7%	9.1%	4.5%
Poor	8	2	0	2	1
	7.3%	1.8%	0.0%	1.8%	0.9%
I don't know/ never used	27	46	51	17	15
	24.5%	41.8%	46.4%	15.5%	13.6%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Yes	17	4	6	14	15
	15.5%	3.6%	5.5%	12.7%	13.6%
No	67	54	53	80	82
	60.9%	49.1%	48.2%	72.7%	74.5%
I don't know/ never used	26	52	51	16	13
	23.6%	47.3%	46.4%	14.5%	11.8%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%

How many total years of professional work experience have you had?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
1 to 5 years	16	20	23	12	18
	14.5%	18.2%	20.9%	10.9%	16.4%
6 to 10 years	26	13	19	21	21
	23.6%	11.8%	17.3%	19.1%	19.1%
11 to 15 years	13	22	19	10	9
	11.8%	20.0%	17.3%	9.1%	8.2%
16 to 20 years	15	7	8	5	4
	13.6%	6.4%	7.3%	4.5%	3.6%
21 to 25 years	13	17	6	12	5
	11.8%	15.5%	5.5%	10.9%	4.5%
26 to 30 years	16	19	16	27	34
	14.5%	17.3%	14.5%	24.5%	30.9%
Over 30 years	11	12	19	23	19
	10.0%	10.9%	17.3%	20.9%	17.3%
	110	110	110	110	110
	100.0%	100.0%	100.0%	100.0%	100.0%
Mean =	17.5	17.7	17.3	21.1	19.8
Median =	15.5	15.5	13.5	25.0	24.5

How many years, if any, of professional work experience in aerospace have you had?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
None	10 9.1%	8 7.3%	10 9.1%	1 0.9%	6 5.5%
1 to 5 years	21 19.1%	25 22.7%	32 29.1%	19 17.3%	20 18.2%
6 to 10 years	30 27.3%	15 13.6%	21 19.1%	25 22.7%	18 16.4%
11 to 15 years	13 11.8%	15 13.6%	8 7.3%	8 7.3%	8 7.3%
16 to 20 years	7 6.4%	9 8.2%	4 3.6%	5 4.5%	4 3.6%
21 to 25 years	9 8.2%	11 10.0%	8 7.3%	8 7.3%	6 5.5%
26 to 30 years	14 12.7%	17 15.5%	19 17.3%	28 25.5%	35 31.8%
Over 30 years	6 5.5%	10 9.1%	8 7.3%	16 14.5%	13 11.8%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%
Mean =	13.6	15.1	13.3	18.4	18.1
Median =	10.0	12.0	8.0	19.0	19.0

What is the highest level of education you have completed?

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Bachelors degree (or less)	28 25.5%	55 50.0%	82 74.5%	38 34.5%	45 40.9%
Masters degree	48 43.6%	23 20.9%	17 15.5%	50 45.5%	43 39.1%
Doctorate	34 30.9%	32 29.1%	11 10.0%	22 20.0%	22 20.0%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%

Gender of Respondent

	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Male	95 86.4%	102 92.7%	93 84.5%	102 92.7%	105 95.5%
Female	15 13.6%	8 7.3%	17 15.5%	8 7.3%	5 4.5%
	110 100.0%	110 100.0%	110 100.0%	110 100.0%	110 100.0%

Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services

THEY ARE:	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Engineers					
Mean	1.87	2.89	2.32	2.53	4.43
Median	1.00	1.50	1.00	1.00	2.00
Scientists					
Mean	4.21	2.95	6.60	3.94	2.96
Median	2.00	1.50	3.50	3.00	3.00
Managers					
Mean	1.20	0.50	1.50	1.00	2.33
Median	1.00	0.50	0.00	1.00	2.00
Technicians					
Mean	0.00	4.25	0.75	0.50	3.00
Median	0.00	1.00	0.50	0.50	3.00
THEY ARE:					
Individual Researchers					
Mean	4.48	3.12	7.30	4.13	3.43
Median	2.00	1.00	3.50	3.00	3.00
Member of Project Team or Group					
Mean	2.26	3.25	1.53	1.93	3.12
Median	1.00	1.50	1.00	2.00	2.00
Technical Managers or Supervisors					
Mean	1.30	2.04	7.05	1.74	7.04
Median	1.00	1.00	1.00	1.00	3.00
Engineering or Research Support Staff					
Mean	1.73	2.25	1.80	3.86	2.44
Median	1.00	1.00	1.00	0.75	1.00
Administrative Support Staff					
Mean	4.00	9.50	0.50	0.50	0.00
Median	4.00	9.50	0.50	0.50	0.00

(continued)

NOTE: Many of these sub-group sample sizes are very small.

Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services (continued)

WORKS IN:	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Aeronautics					
Mean	3.55	4.00	2.06	3.47	5.11
Median	2.00	0.50	1.00	2.00	4.00
Astronautics					
Mean	2.05	2.40	1.14	1.28	4.25
Median	0.75	1.00	0.75	1.00	4.00
Engineering					
Mean	1.40	1.81	2.62	2.39	3.00
Median	1.00	1.00	1.00	1.00	2.00
Space Sciences					
Mean	2.35	3.24	4.74	2.63	3.07
Median	1.00	1.00	2.00	1.00	2.00
Chemistry and Materials					
Mean	1.50	0.00	0.00	0.00	6.00
Median	1.50	0.00	0.00	0.00	6.00
Geosciences					
Mean	0.00	3.94	0.00	0.50	2.00
Median	0.00	2.00	0.00	0.50	2.00
Mathematical or Computer Science					
Mean	1.20	2.40	1.10	1.50	1.80
Median	0.00	2.00	1.00	0.50	1.00
Physics					
Mean	0.50	0.00	3.00	1.75	2.50
Median	0.50	0.00	3.00	1.00	2.50

(continued)

Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services (continued)

WORKS IN:	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Social Sciences					
Mean	4.00	30.00	2.33	0.00	0.00
Median	4.00	30.00	0.00	0.00	0.00
Life Sciences					
Mean	2.67	0.00	0.00	0.00	0.00
Median	1.00	0.00	0.00	0.00	0.00
IN YOUR JOB, STI IS:					
Very important					
Mean	2.98	3.21	2.76	3.22	4.32
Median	2.00	1.00	1.00	2.00	3.00
Somewhat important					
Mean	0.83	1.44	2.93	1.08	1.45
Median	0.50	1.00	0.50	0.50	1.00
Not important					
Mean	0.00	0.00	0.50	1.00	2.00
Median	0.00	0.00	0.00	1.00	2.00
OVERALL, NASA STI SYSTEM IS:					
Very important					
Mean	5.13	4.45	5.10	4.31	5.39
Median	3.00	2.00	2.00	3.00	4.00
Somewhat important					
Mean	1.57	2.19	1.99	1.56	1.82
Median	1.00	1.00	1.00	1.00	1.00
Not important					
Mean	0.58	0.78	0.32	0.38	1.13
Median	0.25	0.50	0.00	0.00	0.50

(continued)

Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services (continued)

IN YOUR JOB, NASA STI IS:	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Very important					
Mean	5.50	4.29	5.72	4.69	5.86
Median	3.00	2.00	2.00	2.50	4.00
Somewhat important					
Mean	1.55	2.98	2.39	2.03	2.59
Median	1.00	1.00	1.00	2.00	2.00
Not important					
Mean	0.84	0.80	0.29	0.53	0.80
Median	0.00	1.00	0.00	0.00	1.00
RATING IMPORTANCE OF PUBLISHING THRU NASA STI:					
Very important					
Mean	5.29	3.50	7.75	2.75	5.83
Median	3.00	1.00	1.50	2.00	4.00
Somewhat important					
Mean	2.57	3.27	3.70	3.85	3.74
Median	2.00	2.00	2.00	2.00	2.00
Not important					
Mean	1.25	2.67	1.45	1.43	1.74
Median	1.00	1.00	0.50	0.50	1.00

(continued)

Average (Mean and Median) Number of Times Per Month Uses NASA STI System Products or Services (continued)

EDUCATION:	Ames Research Center	Goddard Space Flight Center	Marshall Space Flight Center	Lewis Research Center	Langley Research Center
Bachelors degree or less					
Mean	2.75	3.22	2.35	2.46	3.78
Median	1.50	1.00	1.00	1.00	2.00
Masters degree					
Mean	1.51	2.20	2.47	2.45	4.14
Median	1.00	1.00	1.00	2.00	2.00
Doctorate					
Mean	3.90	2.92	4.91	3.86	4.23
Median	2.00	1.00	2.00	3.00	3.00

SELECTED CROSSTABULATIONS

This section of the report crosstabulates demographic and other profile information by:

In your job, how important is it for you to use STI?

When you need STI, do you look first within your center or to an outside source?

Overall, how important is the NASA STI system to you?

To perform your job, how important is the NASA STI system?

In terms of meeting your information needs, how would you rate the NASA STI system?

Have you encountered problems using the NASA STI system?

How important is it for you to publish through the NASA STI system?

How would you rate the NASA STI system in supporting you when you publish?

Have you encountered problems using the NASA STI system when you publish?

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Eng.	Scient.	Mngr.	Tech.	Total
Very important	79.0%	90.3%	53.3%	78.4%	80.6%
Somewhat important	19.2%	9.7%	39.1%	12.1%	17.5%
Not important	1.8%	0.0%	7.6%	9.5%	1.8%
	100.0%	100.0%	100.0%	100.0%	100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Eng.	Scient.	Mngr.	Tech.	Total
Within center	90.2%	82.7%	88.3%	83.1%	88.2%
Outside center	9.8%	17.3%	11.7%	16.9%	11.8%
	100.0%	100.0%	100.0%	100.0%	100.0%

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Eng.	Scient.	Mngr.	Tech.	Total
Very important	43.5%	63.1%	38.6%	31.6%	47.5%
Somewhat important	37.5%	28.7%	45.8%	36.3%	35.8%
Not important	19.0%	8.2%	15.6%	32.1%	16.8%
	100.0%	100.0%	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Eng.	Scient.	Mngr.	Tech.	Total
Very important	32.9%	52.7%	21.1%	17.9%	36.6%
Somewhat important	42.8%	39.1%	44.2%	59.9%	42.5%
Not important	24.3%	8.2%	34.7%	22.2%	20.9%
	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Eng.	Scient.	Mngr.	Tech.	Total
Excellent	28.7%	29.0%	30.4%	8.4%	28.2%
Good	53.1%	59.3%	41.7%	62.6%	54.4%
Fair	9.4%	7.1%	12.2%	14.7%	9.1%
Poor	1.6%	1.9%	0.0%	0.0%	1.6%
I don't know/don't use	7.1%	2.7%	15.6%	14.3%	6.7%
	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Eng.	Scient.	Mngr.	Tech.	Total
Yes	22.8%	34.3%	13.3%	8.4%	24.6%
No	70.1%	62.0%	71.1%	77.3%	68.5%
I don't know/don't use	7.1%	3.7%	15.6%	14.3%	6.9%
	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Eng.	Scient.	Mngr.	Tech.	Total
Very important	21.2%	22.7%	17.3%	26.8%	21.6%
Somewhat important	34.7%	35.2%	24.5%	8.4%	33.6%
Not important	44.1%	42.1%	58.2%	64.8%	44.8%
	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Eng.	Scient.	Mngr.	Tech.	Total
Excellent	24.8%	24.2%	32.5%	12.1%	24.6%
Good	36.3%	44.9%	17.1%	38.9%	37.6%
Fair	8.4%	8.3%	12.2%	0.0%	8.2%
Poor	1.9%	3.0%	0.0%	0.0%	2.0%
I don't know/never used	28.7%	19.5%	38.2%	49.0%	27.6%
	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Eng.	Scient.	Mngr.	Tech.	Total
Yes	8.2%	15.6%	16.5%	0.0%	9.9%
No	61.9%	66.0%	45.3%	51.0%	61.9%
I don't know/never used	29.9%	18.4%	38.2%	49.0%	28.1%
	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences	Total
Very important	82.5%	84.9%	75.5%	83.4%	100.0%	92.7%	79.8%	100.0%	38.5%	100.0%	80.6%
Somewhat important	16.5%	13.3%	21.8%	16.6%	0.0%	7.3%	16.8%	0.0%	35.1%	0.0%	17.5%
Not important	1.0%	1.8%	2.7%	0.0%	0.0%	0.0%	3.4%	0.0%	26.3%	0.0%	1.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences	Total
Within center	89.1%	83.7%	91.8%	89.1%	75.6%	88.7%	69.7%	66.8%	91.2%	66.7%	88.2%
Outside center	10.9%	16.3%	8.2%	10.9%	24.4%	11.3%	30.3%	33.2%	8.8%	33.3%	11.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences	Total
Very important	58.1%	48.5%	41.7%	38.5%	51.2%	74.1%	36.3%	73.0%	29.7%	33.3%	47.5%
Somewhat important	33.4%	20.1%	36.6%	47.9%	48.8%	21.9%	39.2%	27.0%	0.0%	66.7%	35.8%
Not important	8.5%	31.4%	21.7%	13.6%	0.0%	4.0%	24.4%	0.0%	70.3%	0.0%	16.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences.	Total
Very important	46.0%	28.0%	31.2%	36.2%	75.6%	37.5%	24.2%	64.2%	7.4%	33.3%	36.6%
Somewhat important	46.2%	43.3%	40.5%	42.2%	24.4%	58.5%	39.0%	16.2%	22.4%	66.7%	42.5%
Not important	7.8%	28.8%	28.3%	21.6%	0.0%	4.0%	36.8%	19.6%	70.3%	0.0%	20.9%
	100.0%	1000.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences.	Total
Excellent	36.9%	17.3%	26.8%	29.1%	51.2%	14.6%	12.8%	29.1%	7.4%	0.0%	28.2%
Good	54.2%	60.4%	51.3%	56.9%	24.4%	68.8%	53.3%	51.3%	39.9%	66.7%	54.4%
Fair	7.4%	7.2%	10.0%	8.2%	24.4%	7.3%	20.3%	19.6%	0.0%	33.3%	9.1%
Poor	0.4%	5.9%	0.8%	1.4%	0.0%	5.3%	6.7%	0.0%	0.0%	0.0%	1.6%
I don't know/ don't use	1.0%	9.3%	11.1%	4.4%	0.0%	4.0%	6.9%	0.0%	52.7%	0.0%	6.7%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences.	Total
Yes	24.2%	32.9%	21.2%	23.5%	24.4%	51.2%	25.6%	35.1%	7.4%	33.3%	24.6%
No	74.4%	57.8%	67.3%	72.3%	75.6%	44.9%	67.5%	64.9%	39.9%	66.7%	68.5%
I don't know/ don't use	1.4%	9.3%	11.5%	4.2%	0.0%	4.0%	6.9%	0.0%	52.7%	0.0%	6.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer/ Sciences	Physics	Social Sciences	Life Sciences.	Total
Very important	38.1%	16.4%	15.6%	12.1%	51.2%	0.0%	18.6%	38.9%	13.6%	0.0%	21.6%
Somewhat important	39.0%	32.3%	32.9%	34.1%	0.0%	30.2%	21.3%	17.2%	7.4%	66.7%	33.6%
Not important	22.9%	51.4%	51.5%	53.7%	48.8%	69.8%	60.1%	43.9%	79.0%	33.3%	44.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences.	Total
Excellent	33.2%	16.6%	21.4%	21.7%	51.2%	34.5%	17.2%	29.1%	0.0%	0.0%	24.6%
Good	40.4%	41.5%	35.2%	39.1%	24.4%	22.9%	31.7%	43.9%	22.4%	100.0%	37.6%
Fair	13.2%	8.8%	6.5%	4.5%	24.4%	0.0%	5.3%	19.6%	7.4%	0.0%	8.2%
Poor	1.3%	5.9%	1.1%	2.6%	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	2.0%
I don't know/ never used	12.0%	27.3%	35.8%	32.1%	0.0%	42.6%	39.1%	7.4%	70.3%	0.0%	27.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Aero-nautics	Astro-nautics	Engineer.	Space Sciences	Chem. & Mater.	Geo-Sciences	Math/ Computer Sciences	Physics	Social Sciences	Life Sciences.	Total
Yes	14.6%	15.1%	5.3%	6.7%	24.4%	7.3%	10.6%	19.6%	7.4%	66.7%	9.9%
No	75.6%	52.0%	57.4%	60.8%	75.6%	50.1%	45.0%	73.0%	22.4%	33.3%	61.9%
I don't know/ never used	9.8%	32.9%	37.2%	32.4%	0.0%	42.6%	44.4%	7.4%	70.3%	0.0%	28.1%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Very important	73.0%	83.0%	92.7%	80.6%
Somewhat important	23.5%	16.6%	6.6%	17.5%
Not important	3.5%	0.4%	0.7%	1.8%
	100.0%	100.0%	100.0%	100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Within center	92.1%	88.0%	80.5%	88.2%
Outside center	7.9%	12.0%	19.5%	11.8%
	100.0%	100.0%	100.0%	100.0%

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Very important	37.0%	47.1%	69.4%	47.5%
Somewhat important	39.0%	39.5%	23.4%	35.8%
Not important	23.9%	13.4%	7.2%	16.8%
	100.0%	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Very important	25.5%	38.2%	56.8%	36.6%
Somewhat important	46.4%	42.8%	34.3%	42.5%
Not important	28.2%	18.9%	8.9%	20.9%
	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Excellent	27.9%	26.8%	31.1%	28.2%
Good	51.4%	56.5%	57.5%	54.4%
Fair	10.4%	9.1%	6.7%	9.1%
Poor	1.0%	2.5%	1.3%	1.6%
I don't know/don't use	9.4%	5.0%	3.4%	6.7%
	100.0%	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Yes	18.8%	26.3%	34.3%	24.6%
No	71.9%	68.3%	61.7%	68.5%
I don't know/don't use	9.3%	5.4%	4.0%	6.9%
	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Very important	15.8%	28.1%	23.9%	21.6%
Somewhat important	34.2%	32.1%	34.5%	33.6%
Not important	50.0%	39.8%	41.6%	44.8%
	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Excellent	21.2%	23.7%	32.6%	24.6%
Good	31.1%	44.6%	40.6%	37.6%
Fair	8.1%	8.4%	8.3%	8.2%
Poor	0.8%	3.2%	2.7%	2.0%
I don't know/never used	38.8%	20.0%	15.7%	27.6%
	100.0%	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Bachelors Degree or Less	Masters Degree	Doctorate	Total
Yes	4.1%	12.1%	18.6%	9.9%
No	56.8%	66.5%	65.6%	61.9%
I don't know/never used	39.0%	21.4%	15.7%	28.1%
	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	86.4%	83.8%	83.5%	87.8%	77.4%	80.0%	68.2%	80.6%
Somewhat important	12.7%	13.9%	16.5%	12.2%	19.5%	18.6%	27.2%	17.5%
Not important	0.9%	2.3%	0.0%	0.0%	3.1%	1.4%	4.6%	1.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Within center	94.1%	89.2%	92.1%	89.3%	84.7%	83.0%	86.3%	88.2%
Outside center	5.9%	10.8%	7.9%	10.7%	15.3%	17.0%	13.7%	11.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	47.8%	46.7%	52.7%	46.2%	35.0%	54.7%	41.5%	47.5%
Somewhat important	37.5%	35.9%	35.2%	28.3%	47.6%	33.3%	33.5%	35.8%
Not important	14.7%	17.4%	12.1%	25.6%	17.4%	12.0%	25.0%	16.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	37.4%	32.7%	41.3%	42.9%	23.5%	38.1%	39.3%	36.6%
Somewhat important	44.2%	47.7%	40.9%	33.4%	45.8%	45.8%	33.3%	42.5%
Not important	18.4%	19.5%	17.8%	23.7%	30.6%	16.1%	27.4%	20.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Excellent	24.6%	24.0%	26.4%	33.4%	15.5%	38.5%	29.8%	28.2%
Good	62.3%	49.5%	56.9%	44.2%	73.9%	48.0%	50.7%	54.4%
Fair	6.6%	18.1%	9.7%	5.4%	6.2%	6.4%	8.4%	9.1%
Poor	1.5%	2.1%	0.0%	3.8%	0.0%	1.8%	2.1%	1.6%
I don't know/don't use	5.0%	6.4%	7.0%	13.2%	4.3%	5.3%	9.0%	6.7%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Yes	28.7%	25.9%	37.4%	27.9%	17.7%	18.5%	19.4%	24.6%
No	66.2%	67.0%	54.7%	59.5%	77.9%	76.2%	71.6%	68.5%
I don't know/don't use	5.0%	7.1%	7.9%	12.5%	4.3%	5.3%	9.0%	6.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through th : NASA STI system? Is it very important, somewhat important, or not important?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	21.6%	17.6%	15.6%	16.4%	5.4%	35.6%	23.6%	21.6%
Somewhat important	34.5%	41.5%	31.7%	21.7%	35.0%	33.1%	30.0%	33.6%
Not important	43.9%	40.9%	52.7%	61.9%	59.6%	31.3%	46.4%	44.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Excellent	11.9%	18.9%	17.2%	29.2%	13.7%	37.1%	38.0%	24.6%
Good	40.9%	44.9%	41.3%	21.2%	38.2%	40.0%	25.7%	37.6%
Fair	10.7%	13.7%	8.1%	4.4%	1.7%	7.9%	5.7%	8.2%
Poor	1.5%	2.1%	0.0%	5.7%	0.0%	2.1%	3.8%	2.0%
I don't know/never used	35.0%	20.5%	33.4%	39.4%	46.3%	13.0%	26.9%	27.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Years of Professional Work Experience							
	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Yes	6.3%	8.2%	11.8%	5.7%	8.3%	12.9%	12.8%	9.9%
No	57.5%	66.0%	55.7%	57.4%	45.3%	73.1%	63.7%	61.9%
I don't know/never used	36.2%	25.8%	32.5%	36.9%	46.3%	14.0%	23.6%	28.1%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	73.8%	86.2%	84.0%	83.1%	89.6%	72.5%	80.7%	65.7%	80.6%
Somewhat important	21.4%	13.1%	14.6%	16.9%	7.4%	19.8%	18.6%	31.7%	17.5%
Not important	4.7%	0.7%	1.4%	0.0%	3.1%	7.7%	0.7%	2.7%	1.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Within center	80.8%	92.7%	92.1%	92.0%	86.3%	86.6%	81.7%	88.5%	88.2%
Outside center	19.2%	7.3%	7.9%	8.0%	13.7%	13.4%	18.3%	11.5%	11.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	43.0%	48.7%	43.2%	49.5%	57.0%	34.0%	56.7%	38.7%	47.5%
Somewhat important	30.5%	37.4%	36.8%	34.9%	28.8%	48.3%	31.3%	38.2%	35.8%
Not important	26.5%	13.9%	20.0%	15.5%	14.2%	17.6%	12.0%	23.1%	16.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	41.2%	37.1%	30.3%	41.6%	46.6%	18.1%	41.1%	38.5%	36.6%
Somewhat important	26.2%	45.8%	48.1%	37.7%	36.9%	53.5%	41.8%	36.4%	42.5%
Not important	32.6%	17.2%	21.6%	20.7%	16.5%	28.4%	17.1%	25.2%	20.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Excellent	22.4%	23.6%	25.6%	24.7%	40.0%	10.2%	40.6%	30.4%	28.2%
Good	43.6%	62.5%	52.0%	54.1%	46.1%	75.7%	45.9%	55.7%	54.4%
Fair	13.7%	8.2%	13.0%	13.0%	7.0%	4.8%	7.0%	6.4%	9.1%
Poor	2.0%	1.2%	2.0%	1.3%	0.0%	0.0%	1.8%	3.2%	1.6%
I don't know/don't use	18.3%	4.5%	7.5%	6.9%	6.9%	9.3%	4.7%	4.3%	6.7%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Yes	19.9%	29.0%	26.1%	41.3%	16.1%	22.1%	18.6%	19.5%	24.6%
No	59.8%	66.5%	66.5%	50.5%	77.0%	68.6%	76.7%	76.3%	68.5%
I don't know/don't use	20.3%	4.5%	7.3%	8.2%	6.9%	9.3%	4.7%	4.3%	6.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Very important	12.0%	19.7%	16.1%	19.7%	14.5%	9.3%	38.4%	19.8%	21.6%
Somewhat important	18.5%	35.2%	40.4%	26.8%	32.9%	44.7%	29.5%	34.0%	33.6%
Not important	69.5%	45.0%	43.5%	53.6%	52.7%	46.0%	32.0%	46.3%	44.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Excellent	18.8%	10.6%	20.7%	13.2%	35.4%	21.6%	39.8%	38.7%	24.6%
Good	29.6%	40.4%	39.5%	42.1%	36.9%	44.4%	37.0%	25.6%	37.6%
Fair	5.6%	11.3%	13.1%	7.5%	0.0%	2.1%	7.5%	5.6%	8.2%
Poor	2.0%	1.7%	2.0%	1.3%	0.0%	0.0%	2.1%	5.8%	2.0%
I don't know/never used	44.0%	35.9%	24.7%	35.9%	27.8%	31.8%	13.7%	24.4%	27.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Years of Aerospace Work Experience								
	None	1-5 Years	6-10 Years	11-15 Years	16-20 Years	21-25 Years	26-30 Years	Over 30 Years	Total
Yes	2.0%	6.2%	10.9%	14.6%	4.2%	3.8%	13.5%	16.5%	9.9%
No	54.0%	55.7%	63.0%	50.8%	68.0%	64.4%	71.7%	61.7%	61.9%
I don't know/never used	44.0%	38.1%	26.1%	34.7%	27.8%	31.8%	14.7%	21.8%	28.1%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

GENDER OF RESPONDENT

In your job, how important is it for you to use scientific and technical information? Would you say it is very important, somewhat important, or not important?

	Male	Female	Total
Very important	80.9%	77.8%	80.6%
Somewhat important	17.4%	18.8%	17.%
Not important	1.7%	3.3%	1.8%
	100.0%	100.0%	100.0%

When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

	Male	Female	Total
Within center	89.2%	78.0%	88.2%
Outside center	10.8%	22.0%	11.8%
	100.0%	100.0%	100.0%

Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

	Male	Female	Total
Very important	47.0%	52.0%	47.5%
Somewhat important	36.2%	31.2%	35.8%
Not important	16.8%	16.8%	16.8%
	100.0%	100.0%	100.0%

To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

	Male	Female	Total
Very important	36.9%	33.4%	36.6%
Somewhat important	41.8%	49.8%	42.5%
Not important	21.3%	16.8%	20.9%
	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

	Male	Female	Total
Excellent	28.9%	21.1%	28.2%
Good	54.8%	50.1%	54.4%
Fair	8.5%	16.0%	9.1%
Poor	1.7%	0.0%	1.6%
I don't know/don't use	6.1%	12.9%	6.7%
	100.0%	100.0%	100.0%

Have you encountered problems using the NASA STI system when you need to access information?

	Male	Female	Total
Yes	24.3%	28.7%	24.6%
No	69.6%	57.1%	68.5%
I don't know/don't use	6.2%	14.3%	6.9%
	100.0%	100.0%	100.0%

In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

	Male	Female	Total
Very important	21.3%	24.8%	21.6%
Somewhat important	33.9%	30.5%	33.6%
Not important	44.8%	44.7%	44.8%
	100.0%	100.0%	100.0%

How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

	Male	Female	Total
Excellent	25.6%	13.2%	24.6%
Good	38.0%	33.3%	37.6%
Fair	7.2%	18.8%	8.2%
Poor	2.1%	1.4%	2.0%
I don't know/never used	27.0%	33.3%	27.6%
	100.0%	100.0%	100.0%

Have you encountered any problems using the NASA STI system services when you publish?

	Male	Female	Total
Yes	9.7%	12.7%	9.9%
No	62.8%	52.4%	61.9%
I don't know/never used	27.5%	34.9%	28.1%
	100.0%	100.0%	100.0%

OVERALL IMPORTANCE OF USING STI

Importance of Using Scientific and Technical Information

Importance of Using the NASA STI System (Overall)

	Very Important	Somewhat Important	Not Important	Total
Very important	53.7%	22.9%	8.8%	47.5%
Somewhat important	34.1%	46.3%	7.9%	35.8%
Not important	12.2%	30.8%	83.4%	16.8%
	100.0%	100.0%	100.0%	100.0%

Importance of Using Scientific and Technical Information

Importance of Using the NASA STI System (To Perform Your Job)

	Very Important	Somewhat Important	Not Important	Total
Very important	42.6%	12.5%	0.0%	36.6%
Somewhat important	41.4%	50.4%	16.6%	42.5%
Not important	15.9%	37.2%	83.4%	20.9%
	100.0%	100.0%	100.0%	100.0%

APPENDIX

Hello, Mr(s). _____, I'm working on a project for NASA Headquarters and we're doing a brief survey about how people use scientific and technical information. My first question is:

1. If you were to define what you do at work, would you say you are an engineer, a scientist, or something else?

   1 - Engineer
   2 - Scientist
   3 - Other (_____)

2. Which of these categories best describes what you do at work? Are you primarily **(READ CHOICES LISTED)**:

   1 - An individual researcher
   2 - A member of a project team or group
   3 - A technical manager or supervisor
   4 - Engineering or research support staff
   5 - Administrative support staff, or
   6 - Something else? (specify other: _____)

3. If you could use only **one term** to characterize your area of work or the application of your work, would it be **(READ ALL CHOICES LISTED)**:

   1 - Aeronautics
   2 - Astronautics
   3 - Engineering
   4 - Space sciences, or
   5 - Something else? (What is it?_____)

4. In your job, how important is it for you to **use** scientific and technical information? Would you say it is very important, somewhat important, or not important?

   1 - Very important 2 - Somewhat important, or 3 - Not important

5. When you need to obtain scientific or technical information, are you more likely to look first to people and resources within your center or to people and resources outside of your center?

   1 - Within center 2 - Outside center

6. In your job, how important is it for you to **publish** scientific and technical information? Is it very important, somewhat important, or not important?

   1 - Very important 2 - Somewhat important, or 3 - Not important

7. The NASA scientific and technical information system provides services such as editing, graphics, photography, printing and library services at each NASA center. This system produces a variety of products including NASA technical reports. STAR, SCAN, RECON, and ARIN are also part of the STI system. How many total times per month do you use any product or service included in the NASA scientific and technical information system?

   (IF MORE THAN "1" SKIP TO Q. 9) _____ times/mo.

8. **(IF ONE TIME OR LESS A MONTH...)** You're not a frequent user. Why is that?

   _____

9. Overall, how important is this NASA STI system (I just described) to you? Would you say it is very important, somewhat important, or not important?

   1 - Very important 2 - Somewhat important, or 3 - Not important

10. To perform your job, how important is it for you to use the NASA STI system? Would you say it is very important, somewhat important, or not important?

    1 - Very important 2 - Somewhat important, or 3 - Not important

11. How would you evaluate the overall NASA scientific and technical information system in terms of meeting your information needs? Would you rate it as excellent, good, fair, or poor?

    1 - Excellent 2 - Good 3 - Fair, or 4 - Poor

12. Have you encountered problems using the NASA STI system when you need to access information? 1 - Yes 2 - No (SKIP TO Q. 14)

13. What problems have you experienced when using the NASA STI system to access information? (DO NOT READ CHOICES)

    1 - Takes too much time/effort to **locate** info
    2 - Takes too much time/effort to **obtain** info
    3 - Not **accurate**/precise enough/reliable
    4 - Don't like the **organization** of the reports
    5 - Too hard to **read/use** them
    Other:

    _____

    _____

    _____

14. In your job, how important is it for you to publish your work through the NASA STI system? Is it very important, somewhat important, or not important?

    1 - Very important 2 - Somewhat important, or 3 - Not important

15. How would you evaluate the overall NASA scientific and technical information system in terms of supporting you when you publish your work? Would you say it is excellent, good, fair, or poor?

    1 - Excellent 2 - Good 3 - Fair, or 4 - Poor

16. Have you encountered any problems using the NASA STI system services when you publish?

    1 - Yes 2 - No (SKIP TO Q. 18)

17. What problems have you experienced when using the NASA STI system services when you publish?

    _____

    _____

    _____

18. How many total years of professional work experience have you had? _____ yrs.

19. How many years, if any, of professional work experience in aerospace have you had? _____ yrs.

20. What is the highest level of education you have completed?

    1 - Bachelors degree (or less)
    2 - Masters degree
    3 - Doctorate

Thanks for helping with our survey today. I appreciate your time!

RECORD: ' - Male 2 - Female

INTV BY: _____

DATE: _____

TIME ENDED: _____

CENTER: 1 - Ames in Calif. (415)
2 - Goddard in MD (301)
3 - Marshall in Alab. (205)
4 - Lewis in Ohio
5 - Langley in VA (700)

CENTER DIR. PG. #: _____

NAME: _____

PHONE: _____
(area code)

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12a. DISTRIBUTION/AVAILABILITY STATEMENT
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13. ABSTRACT *(Maximum 200 words)*

A study was conducted to provide NASA management with an "initial" look at the production and use of scientific and technical information (STI) at five NASA centers (Ames, Goddard, Langley, Lewis, and Marshall). The 550 respondents who were interviewed by telephone held favorable views regarding the NASA STI system. About 65% of the respondents stated that it is either very or somewhat important for them to publish their work through the NASA STI system. About 10% of those respondents encountered problems using the NASA STI system services for publication. The most frequently reported problem was "the process is too time consuming" (8.6%). Overall, those respondents using the NASA STI system to publish their work rated the system as excellent (24.6%) or good (37.6%). About 79% of the respondents stated that it is either very or somewhat important for them to use the NASA STI system to access information. About 25% of those respondents encountered problems using the NASA STI system to access information. The most frequently reported problems were "the time and effort it takes to locate and obtain information through the system" (14.4%). Overall, about 83% of the respondents stated that the NASA STI system is important to performing their work. Overall, about 73% of the respondents stated that the NASA STI system meets their information needs.

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